Society and Natural Resources, 16:105–121, 2003

0894-1920/2003 $12.00 + .00
DOI: 10.1080/08941920390174238

Taylor & Francis
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Participation by Local Governmental Officials in Watershed Management Planning

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This article reports on a study that explores what factors influence the decisions of New England local governmental officials (LGOs) to participate (or not) in regional collaborative environmental policymaking on watershed management planning. Q methodology was used to find coherent narratives that captured basic perspectives LGOs took toward the opportunity to participate in a watershed management planning process. Five perspectives emerged from the factor analysis. One centers on strategic calculations of influencing outcomes. A second weighs interest and available time. A third looks at how the community would benefit. A fourth is rooted in one's personal environmental ethics. And a fifth attempts to match skills and experiences with the needs of the policy endeavor. In conclusion, we found that LGOs make their decision to participate or not based on three general considerations: They feel they can help make a positive difference; they see working on the problem as consistent with their environmental ethic; and it is in their community's interest that they participate in the process.

Keywords environmental decision making, local government, public participation, Q methodology

It All Comes Down to Local Government

The bulk of the literature on motivation for evaluation of public participation deals with representatives of interest groups and "average" citizens or publics (*Nature* 2000). Technical experts, members of the regulatory agency staff, and local

Received 18 December 2000; accepted 14 January 2002.

We thank the many local governmental officials who generously contributed their time to interviews and the Q sort exercise. Thanks also to the directors and staff of the NEPs (Diane Gould, Betsy McEvoy, Chris Nash, Katherine Groves, Sherry Hansen, Patricia Harrington, Jim Chase) and staff from the U.S. EPA (Mel Cote, Mark Kern, Tara Tracy, and Steve Willett) whose cooperation made this project possible. We also appreciate advice on Q methodology provided by Will Focht of Oklahoma State University. Finally, we thank four reviewers for thoughtful review and constructive comments. This material is in part based on work supported by the National Science Foundation under grant number SBR 96-13626. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect those of the National Science Foundation.

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governmental officials are frequently excluded when terms "citizen," "public(s)," or "stakeholders" are used. And, although there is a body of literature on the role of technical experts (Frankena 1988, Nelkin 1975) and of federal and state institutions (Fiorino 1995, Heiman 1990) in public participation processes, there is by no means an equivalent amount on the role of local governmental officials or the intergovernmental relations between federal, state, and local institutions (Herzik and Mushkatel 1992).[1]

Yet local government participation in environmental policymaking and implementation is recognized as a critical component of successful policy outcomes (Angel et al. 1995; Kearney and Smith 1994). The participation of local government officials (LGOs) in regional policy processes is important for a number of reasons. First, local officials are instrumental to ensuring regulations are implemented at the local level. Second, local officials have unique insights into local needs, concerns, and resources that are relevant to effective policies at the local level. Third, local officials play influential roles in community support *or* opposition to state and federal policies. A U.S. Environmental Protection Agency (EPA) official has noted that "It comes down to local government. ... It is essential that at the local level we all get involved" to support the successful implementation of federal policies (Witt 1988, 24).

The disjunction between the treatment in the literature of local officials and their importance in successful environmental policymaking and implementation points to a need for research on this topic. The research reported here investigates what influences the decision of LGOs to participate in collaborative regional environmental policymaking.

Existing Literature on Factors Influencing Participation

While an extensive body of literature can be mined to understand factors[2] that shape decisions by individuals to participate in policymaking, very little has focused on LGOs (Plumlee et al. 1985). In general, the literature of theoretical and empirical studies on public participation deals with "stakeholders" (those associated with identifiable interest groups; see *Nature* 2000) or "citizens" generally (those expressing personal concerns and relatively unorganized groups in communities). This literature can be used to glean factors that may influence the participation of LGOs. In addition to the literature on public participation, we also reviewed literature on social movement theory and local government and intergovernmental relations.

Institutional Regimes and Intergovernmental Relationships

The ability of local officials to participate in state and federal policy initiatives is constrained or enabled by legal regimes that govern local autonomy and avenues of participation (Wernstedt 2000; Heiman 1990; Lake 1994). These legal regimes and intergovernmental relations can influence participants' perceptions of whether their participation is likely to be meaningful or effective. Individuals make judgments about the political efficacy of different forms of political participation (Verba and Nie 1972; Oberschall 1973). Moreover, when participation is viewed as legitimating preconceived goals of state/federal agencies, individuals may avoid or cease participation in policy processes (Heiman 1990; Gephart 1992).

Trust, Credibility, and Sincerity of Government Institutions

The role of trust (or distrust) and credibility in environmental risk management has come under increased scrutiny in the last decade (Kasperson et al. 1992). This is symptomatic of a literature that documents a loss of public trust in democratic governments (Lipset and Schneider 1983; Wright 1976). Trust has been observed to influence decisions to participate (National Academy of Sciences 1989; Smith and McDonough 2001). Moreover, individuals can be influenced in their decisions to participate based upon the degree to which agencies are viewed as having a collaborative orientation. For example, Plumlee et al. (1985) observed that "many of our respondents indicated that they felt the EPA did not rely enough on local capabilities, and, in fact did not really seem to trust the local jurisdictions" (p. 466).

Local Concerns, Incentives, and Constraints

Local officials are subject to a variety of pressures that create incentives or constraints to participate in environmental policymaking. Pressure can come from local industries (Aronoff and Gunter 1994), local residents (Dehoog et al. 1990; Kearney and Smith 1994), or from other governmental units (Reese and Malmer 1994; Kunreuther 1995). Perceptions of linkages among issues can motivate involvement (Schneider and Teske 1993). Local officials may also perceive participation as a way to get local agendas addressed (Plumlee et al. 1985). Motivation to participate can emerge from concerns for health and safety (Gunter and Finlay 1988) or worries about other social impacts (Freudenberg and Olson 1983). Oliver (1984) noted that optimism about others' actions is a key factor when the action has an accelerating impact on obtaining the public good. Likewise, pessimism about others' actions can also spur one to participate.

Participants' Skills, Knowledge, and Resources

People may be more inclined to participate if they have substantive knowledge about the issue or if they have the skills and resources to participate effectively (Bradbury and Branch 1999; Laird 1993; Tuler 2000). Discourse and negotiation skills and substantive knowledge can improve the quality and effectiveness of participation, and may affect decisions to participate. Additional literature discusses the relationships among resource constraints (e.g., funding, staffing) and the actions of local officials or bureaucrats that influence the effectiveness of federal policies in local contexts (Lipsky 1980). Federal and state agencies can increase the capacity of local governments to participate by providing technical assistance and funding (Bacow and Milkey 1982; Reese and Malmer 1994). Another type of resource is social networks or citizen infrastructure (Lynn 1987; Aronoff and Gunter 1994).

Personal Values and Interests

Some factors that influence local officials' decision to participate may be related to their personal values (e.g., belief in home rule, individual property rights, biocentric worldview). Empirical studies suggest that personal ideological beliefs and interests may influence individuals' decisions to participate in particular policy processes (Kempton et al. 1995; Susskind and Cruikshank 1987; Schneider and Teske 1993).

Normative Features of the Policymaking Process

Many hypotheses exist about the conditions necessary for "good" processes (Bradbury and Branch 1999; Carnes et al. 1998; Fiorino 1990; Lauber and Knuth 1997; Webler 1995). They include, for example, that processes should have balanced representation of different stakeholders, be open/transparent, be based on quality information, be iterative, promote learning, allow participants to develop and change agendas and define the scope of the problem, empower local citizens, and be fair. Aronoff and Gunter (1994) report that the ability for local people to express clear goals was an important factor influencing participation. It is reasonable to expect that people will be more likely to participate if the process meets their normative expectations for good process.

Interpersonal Relationships

A variety of interpersonal factors can influence individual decisions to participate in policy processes. Wilson (1973) identified solidary incentives as a motivation of people to participate in social movements. Interpersonal trust can play an important role in individuals' participation in group and policy activities (Gambetta 1988). Respect, open-mindedness, honesty, understanding, and listening have been found to be important behavioral characteristics that affect the quality of participation in environmental planning processes (Becker et al., 1995; Brenneis 1988; Schreier et al., 1995; Tuler 2000).

Rationale for Selection of the Case Studies

To reveal factors motivating local governmental officials to participate in collaborative environmental policymaking, we selected four case studies in the area of watershed management and planning. Two cases are direct applications of the U.S. National Estuary Program (NEP)—the Massachusetts Bays Program out of Boston and the Casco Bay Program in Maine. The remaining two cases are river watershed management projects in Connecticut that were associated with the Long Island Sound NEP effort. These are the Quinnipiac River Project and the Norwalk River Project.

NEP projects have adopted the "Management Conference" model of policymaking (U.S. EPA 1990). Four committees—a policy committee, a management committee, a citizens advisory committee (CAC), and a technical advisory committee (TAC) coordinate work toward producing a comprehensive conservation and management plan. The policy committee is made up of leadership from state governments and federal agencies. It sets priorities, ensures that the required matching funds are made available, and serves in an oversight capacity. The management committee comprises about 25 individuals selected from the Policy Committee, the CAC, and the TAC.[3] Its membership includes the U.S. EPA, other relevant federal agencies, state agencies and offices, and local and regional governments or boards, as well as major stakeholder groups. The management committee puts together a work plan (technical analyses, public outreach, education, coalition building) and prepares the management plan. Decision making in the Management Committee is based strictly on consensus. Any party to the management committee, including the U.S. EPA, can veto a proposed policy initiative.

We selected these cases primarily because they experienced markedly different levels of local government participation, and yet they were all located in New

England, a region of the country with a particularly strong role for local government. It would be too simplistic to say that one was a "failure" and another a "success." All projects experienced ups and downs. In general, however, the Massachusetts Bays Project elicited lasting participation from a much larger number of local governmental officials than did the Casco Bay Project in Maine. We selected the Norwalk and Quinnipiac River projects because although they are close to each other in a small state they achieved vastly different levels of participation. The Norwalk River project enjoyed higher levels of LGO participation. U.S. EPA staff in the Long Island Estuary Project were interested to know why the levels of participation were so different.

Q Methodology as a Technique to Reveal Subjectivity

Q methodology is a way of using inverted factor analysis to reveal collective rationales, social narratives, or perspectives—about a particular topic (Brown 1980; McKeown and Thomas 1988). Q methodology has a growing history of application in the political and social sciences, and its use in environmental studies is expanding (Focht and Lawler 2000; Steelman and McGuire 1999; Addams and Proops 2000; Webler and Tuler 2001; Webler et al. 2000; Woolley and McGinnis 2000). The assumption is that while perspectives are held subjectively, similarities among individual views make it possible to articulate a small number of social narratives on a topic. For instance, in his Q study into how policy activists frame the global climate change issue, Bruce Dayton (2000) discovered three fundamental perspectives. Rarely is an individual's point of view identical to the social narrative; instead, the narratives represent ideal types.

Access to the social narratives is gained by having people sort *Q statements* according to how closely the statements match their personal beliefs. Unlike a survey where the respondents are selected to represent a population, in a Q study participants are selected who represent the full diversity of viewpoints. The statements are expressions about the topic. They can be collected from the media or via interviews with involved parties. Narratives are extracted from the correlations between people's Q sorts using factor analysis.

Our application of Q methodology is described in the following four steps. The first step was to identify a concourse of statements, from which the sample of statements used in the Q sort is drawn. We generated a concourse by interviewing 45 LGOs from three NEP projects in Massachusetts, New Hampshire, and Maine.[4] The literature review informed the content of our interview guide. We attempted to interview nonparticipants as well as participants, although we were less successful in locating nonparticipants.[5] Our strategy was to begin with the general question: "Why did you choose to get involved (or not) in the NEP?" We only invoked specific probes to invite more clarity. All interviews were transcribed. The first three authors each coded and analyzed the transcripts according to the constant comparison method of grounded theory (Glaser 1992; Strauss and Corbin 1990). To ensure reliability, the authors frequently reviewed each other's coding and reached agreement on the meaning of codes.

The second step was to select from the interviews a small set of statements to be included in the Q sort exercise (see step 3). At most, people can be expected to sort four to five dozen statements. We chose statements describing things that people said affected their decision to participate. The full list of statements appears in Table 1. (Further description of Table 1 is presented later.)

TABLE 1 Q Statements and their Relevance in Each Perspective

Number	Text of statement	Perspectives				
		A	B	C	D	E
1.	Being part of a group that works closely together	3	−3	0	0	0
2.	Meeting new people	−2	−4	−2	−2	−1
3.	Learning new things	1	−1	1	1	2
4.	Fulfilling my sense of civic duty	−3	2	−1	1	−1
5.	My ability to make a strong contribution	3	1	2	4	4
6.	Acting on my environmental ethics	3	4	1	5	5
7.	The stigma associated with working with U.S. EPA	−4	−5	−4	−4	−5
8.	My earlier experiences with similar processes	0	1	1	−1	3
9.	My earlier experiences with these state and federal agencies	0	1	0	−2	−2
10.	The sense that, if I don't do it, who will?	3	1	−1	2	1
11.	My interest in working on regional issues as opposed to purely local ones	1	−1	1	2	1
12.	Being acquainted with the other participants	−2	−2	−1	−2	2
13.	My personal interests (distinguished from professional interests)	0	3	−1	0	2
14.	Financial benefits to my town	−1	2	5	−3	−3
15.	A preexisting tradition of (regional) cooperation in this area	−1	0	0	−1	2
16.	The benefits to my town from the information sharing likely to happen	0	2	4	3	4
17.	The impacts on my town's influence over regional policies that matter to us	1	1	3	1	3
18.	Community support for my involvement	0	1	3	−1	1
19.	The timing between my term of public office and the watershed process	−3	−4	−5	−5	5
20.	The placement of the watershed project administration in state agencies	−1	−2	0	−1	0
21.	Producing tangible results	4	2	4	5	2
22.	My professional interests and responsibilities (distinguished from personal interests)	2	5	2	−2	0
23.	My boss's attitude toward my doing this	−3	3	−3	−4	−5
24.	The relevance and clarity of the project's objectives	5	3	4	4	0
25.	The clarity of the participants' roles and responsibilities	2	0	−1	3	0
26.	The need for participation	2	−1	3	2	−5
27.	The way the group makes decisions	2	−1	0	2	−1

(*Continued*)

TABLE 1 (*Continued*)

Number	Text of statement	Perspectives A	B	C	D	E
28.	The way I am received on my first visit	−5	−2	−3	−3	−3
29.	Our ability to start to solve watershed problems right away	−1	−1	2	5	1
30.	The decision-making power of the participants	2	−2	3	3	0
31.	The process is fun and enjoyable	0	−1	−3	0	0
32.	The capability of the project for accomplishing its goals	5	2	5	4	3
33.	The kinds of interests represented among the participants	3	0	0	0	3
34.	How I will appear to others if I participate	−5	−5	−4	−5	−2
35.	The convenience of meeting times and places	1	1	−2	0	−1
36.	There are other ways to participate than going to meetings	−4	0	−3	−1	−2
37.	Participants will be trained in consensus-building skills	−1	−3	0	−1	−3
38.	The productivity of meetings	4	3	1	2	1
39.	The quality of the discussions with others	2	0	1	1	0
40.	The scope of the project	5	0	2	1	1
41.	The time that would come out of my professional life	0	5	−1	−3	−2
42.	The time that would come out of my personal life	1	5	−2	−2	−4
43.	The respectfulness of the invitation	−4	−3	−5	−3	−4
44.	Bringing traditional adversaries together to talk face-to-face	0	−1	1	0	−1
45.	Receiving a personal invitation	−2	−3	−4	−4	5
46.	Feeling that, when I speak, the others are listening	−1	−2	0	1	−3
47.	The competence of the project leadership	4	0	2	3	1
48.	The helpfulness and friendliness of project staff	1	0	−1	0	−1
49.	The age and gender of the other participants	−5	−5	−5	−5	−2
50.	Dealing with conflict	−2	−4	−2	0	−1
51.	Other voluntary or community service activities that I would have to give up to do this	−1	4	−2	−1	−4
52.	Existence of water supply or quality problems in my town	1	4	5	1	4

Note. The numbers from +5 to −5 refer to the relationship each statement has to the perspective (see text).

The third step was to print the statements on small cards and have the participants sort the Q cards. The sort is done on a board (about 2 feet by 3 feet) with 52 boxes, one for each card, arranged in 11 columns. The rightmost column was labeled "more relevant to my decision" and the leftmost was labeled "less relevant to my decision." We asked each person to "Imagine you are being asked to participate in the watershed project right now. Sort the statements according to how relevant each would be to your decision to participate or not."

We selected about 10 people[6] from each project, based on three criteria: They represented different points of view. They would be likely to do the Q sort thoughtfully. And they had well-formed opinions about the process. Most of our participants came from the management committees, a few came from the CACs, and none were policy committee or TAC members. A researcher visited each person at a convenient time and place. People reported the Q sort was innovative, fun, moderately difficult, and it stimulated their thinking. During the sort the researcher asked the participant to talk about the sorting and how he or she interpreted the statements. These data were recorded and used to help interpret the results.[7]

The fourth step was to analyze the data. We used the MQMethod program for this purpose.[8] MQMethod computes a correlation matrix among the Q sorts and performs a factor analysis on the correlation matrix. Any statistical factor analysis requires a certain amount of judgment in determining the factors. We used judgmental hand rotation and selected our factors based on three criteria: explanatory value $>8\%$, at least two participants load significantly, and the factor is theoretically important. Table 2 presents the reordered factor matrix showing the loading coefficients for each person who completed the Q sort. Only six persons loaded with significance on more than one factor and only five persons did not load with statistical significance on any factor. This is a very clean factor matrix, and it suggests that the perspectives we identify here are well formed.

Five Perspectives on Participation Revealed

Five statistical factors—or what we will now call social perspectives—emerged from the analysis. Each is characterized by a particular rank ordering of the Q statements into the eleven categories from -5 to $+5$. A statement ranking $+5$ strongly defines that perspective while a statement ranking -5 is strongly associated with the opposite meaning of that perspective. Therefore the perspectives are defined by the particular ranking each statement received.

These five perspectives describe how LGOs made decisions to participate (or not) in the four watershed management planning processes we studied. We describe these perspectives using the language of the Q statements that each participant sorted. Numbers in parentheses refer to the Q statements listed in Table 1. Before turning to the five perspectives, however, we relate some of the key similarities.

Similarities Among the Five Perspectives

These perspectives provide distinct views, but they also share some key features. One similarity is that all perspectives emphasized: whether the process is likely to produce tangible results (21) and the capability of the project for accomplishing goals (32). While each of these was not always the highest ranked in each perspective, they were highly ranked by all perspectives. That these statements were so tightly linked across perspectives suggests the fundamental importance of the potential of tangible results in participation decisions.

TABLE 2 Reordered Factor Matrix with Pseudonyms Showing Loading Coefficients for each Perspective, Watershed Project, Position in Local Government, and Level of Participation

Pseudonym	A	B	C	D	E	Watershed	Position	Participation
Factor A								
Sanderson	**0.71**	0.20	0.37	0.32	0.20	Quin	City Engineer	+
Ellis	**0.64**	0.11	0.32	0.29	0.31	CBP	Planner	+
Sessions	**0.61**	**0.46**	0.18	0.33	−0.05	Quin	Planner	−
Holden	**0.56**	0.18	−0.02	0.15	0.42	CBP	Manager	+
Downs	**0.53**	0.29	**0.48**	0.27	0.06	MBP	Con Com	+
Royalston	**0.50**	0.37	0.32	0.35	0.15	MBP	Con Com	+
Potter	**0.48**	0.13	0.40	0.24	0.09	CBP	City Engineer	−
Langley	**0.47**	**0.46**	0.34	0.17	0.19	MBP	Planner	+
Factor B								
Gore	0.02	**0.75**	0.06	−0.06	0.18	Quin	Planner	−
Cart	−0.05	**0.65**	0.39	0.03	−0.13	Quin	DPW	−
Castle	0.23	**0.61**	0.07	0.02	0.16	CBP	Planner	−
Rowling	0.02	**0.60**	0.15	0.27	0.36	Quin	Planner	−
Clark	0.33	**0.59**	0.31	−0.08	−0.20	Quin	Environ. Dept.	−
Sandvik	0.33	**0.55**	0.10	0.38	0.06	MBP	Planner	−
Olson	0.21	**0.50**	0.01	0.32	−0.09	Norw	Planner	−
Factor C								
LaPierre	0.22	0.26	**0.72**	0.38	0.05	Quin	Planner	−
Igby	0.28	0.17	**0.68**	0.17	0.16	CBP	Planner	+
Granger	0.31	0.09	**0.63**	0.13	0.40	CBP	Planner	+
Weasley	0.23	0.10	**0.59**	0.33	0.27	Quin	Planner	−
Dumbledore	0.36	0.31	**0.54**	0.36	0.16	Norw	Econ. Dev.	−
Quigley	0.12	0.05	**0.45**	0.38	0.41	CBP	Con Com	−
Factor D								
Jackson	0.06	0.19	0.08	**0.70**	0.23	MBP	Coastal Com	+
Kaplan	0.23	0.21	0.38	**0.70**	0.17	Quin	Wetlands Com	+
Snipe	0.06	0.33	**0.46**	**0.62**	0.18	MBP	Con Com	+
Filch	0.36	−0.17	0.23	**0.60**	0.12	MBP	Water Com	+
Fortuna	**0.48**	−0.21	0.23	**0.58**	0.29	MBP	Con Com	+
Wilber	**0.47**	0.20	0.20	**0.56**	0.06	MBP	Town Mgr.	+
Handsacker	0.36	0.05	0.14	**0.52**	0.12	MBP	Con Com	+
Hughes	0.33	−0.10	0.20	**0.51**	0.28	Norw	Con Com	+
Lane	0.07	0.11	0.24	**0.49**	0.37	Norw	Con Com	+
Keel	0.21	0.28	0.22	**0.46**	0.37	Norw	Health Dept.	−
Factor E								
Macdonald	0.16	−0.01	0.18	0.20	**0.71**	Norw	Planning Bd.	+
Egland	0.14	0.26	0.32	0.37	**0.58**	Norw	Harbor Com	+
Lance	0.37	0.19	0.14	0.31	**0.46**	Quin	Planner	+

(*Continued*)

TABLE 2 (*Continued*)

Pseudonym	A	B	C	D	E	Watershed	Position	Participation
Nonloaders								
Seiler	0.41	0.35	0.26	0.00	0.26	Norw	Environ. dept.	+
Estabrook	0.30	0.28	0.35	0.21	0.23	MBP	Shellfish Warden	+
Rass	0.40	0.34	0.39	0.41	0.16	Norw	Con Com	–
Webber	0.25	0.01	0.31	0.19	0.36	CBP	Selectboard	–
Foxbard	0.06	0.31	0.40	0.13	0.23	CBP	City engineer	–
Variance explained	13%	12%	12%	14%	8%			

Note. Coefficients in boldface are significant at $p < .001$, two-tailed, critical value = .429. Abbreviations: CBP, Casco Bay Program, Portland ME; MBP, Massachusetts Bays Program, Boston; Quin, Quinnipiac River Project, New Haven, CT; Norw, Norwalk River Project, New Haven, CT; Con Com, Conservation Commission; Environ. Dept., Environmental Department; DPW, Department of Public Works; Com, Commission.

Several statements appeared at the bottom of the pile in all perspectives. First, people generally agreed that there was no stigma about collaborating with the U.S. EPA (7). Second, the age and gender of the other participants (49) was ranked consistently as irrelevant. A few people told us that they reacted to the "political correctness" element of this statement. Third, statements associated with perceptions of self by others—how I will appear to others if I participate (34), the way I am received on my first visit (28), and the respectfulness of the invitation (43)—were ranked low. We discovered that people associated these statements with egocentrism and personality weaknesses. Fourth, people generally ranked low the statement about meeting new people (2). LGOs are already active in community affairs and meeting new people was not important for them.

Perspective A: Capacity to Achieve a Meaningful Result

When making a decision to participate or not, some individuals cared greatly about features of the project that would support the accomplishment of meaningful results. The six most highly ranked statements in this perspective all addressed key features of the watershed management project. These included: the capability of the project to accomplish its goals (32), the relevance and clarity of the project's objectives (24), the scope of the project (40), the productivity of meetings (38), the clarity of participants' roles and responsibilities (25), the ability to produce tangible results (21), and the competence of project leadership (47).

Following this concern about the capacity of the project to achieve meaningful results, this perspective placed strong emphasis on what it would be like to work with others in the project. This concerns the kinds of interests that would be represented among the group (33), being part of a group that works closely together (1), the way the group makes decisions and its power to influence outcomes (27, 30), and the character of interactions with watershed project staff and other participants (39, 48). Certain of these process features play important roles in perspectives C and D, but nowhere else do they appear so close to the top of the scale.

Unlike perspective D, this perspective did not place a strong emphasis on the capacity of the project to begin solving watershed-related problems (29). We asked

about this and people replied that it was senseless to assume that the watershed problems could be solved during the management planning process. Real solutions take much longer to achieve.

In contrast to perspective C, which highlighted the town's interests, this perspective placed much lower weight on considering financial benefits (14) or informational benefits (16) to towns, or on improving the influence one's town has over regional policy making (17). People exemplifying this perspective were not necessarily motivated by a utilitarian calculation of costs and benefits to one's community, nor were they motivated by a sense of civic duty (4), although several of the individuals who loaded high on this perspective were municipal employees. When we inquired about the low ranking for civic duty (4), one individual mentioned that he already had done more than his share of civic duty—a point echoed by others.

Perspective B: Time, Personal Interest, and Importance of the Problem

This perspective was unique in that all but one of the nine people who loaded significantly on it were nonparticipants. All four watershed projects were represented. But the Quinnipiac River Project, which is the project with the lowest level of LGO involvement, produced four of the five highest loaders.

There are three basic components of this perspective. Listed in the order of importance and phrased as questions, they are: Do I have the time to commit to this? Is there a problem that needs to be fixed? Is this a problem that I care about?

Statements about the time required to participate (42, 41) and the time taken away from other voluntary activities (51) were ranked at the top for this perspective, much higher than any other perspective. During the interviews, not having enough time was a common explanation given to us by nonparticipants for why they chose not to participate. One individual from the Massachusetts Bays Program spoke of not participating because of "triage" in deciding what to work on and the lack of support from her town council.

Second in importance were statements about the presence of a problem. These were captured not only in the direct statement related to the existence of a problem in my town (52), but also indirectly in statements about whether the boss (23) and the community (18) think it is a problem.

Third are statements concerning the individual's interest in the problem. Foremost was: my professional interests (22), my environmental ethics (6), my personal interests (13), and civic duty (4). Many of these were ranked higher on this perspective than on any other.

We conclude that these people did not participate either because they did not perceive there to be a major problem, or the problem was not one they were interested in working on solving. On top of that, they did not have the time to work on any project of low relevance or importance.

Perspective C: Community Benefits

People invoking this perspective-based decision about participation on the degree to which they felt the project would help to solve watershed-related problems in their town and bring specific benefits to their town. The presence of a water supply or quality problem in my town (52) was the top-ranked item. The second and fourth items addressed local financial benefits (14) and local benefits from information sharing (16). Community support for one's involvement in the process (18) was also emphasized. Together these point to a perspective grounded in a concern for one's

community. Indeed, one person who loaded significantly on this perspective said in his interview:

> I've been involved a lot in what we can get for our community out of this. We have gotten over $100,000 in grants [for my community].

According to this perspective a decision about whether to participate or not is based on what benefits the community, instead of more personal objectives. Numerous factors associated with one's self were ranked on the lower side including: personal interests (13), the sense that if I don't do it, who will? (10), the time commitments this would take (41, 42), or the impact on one's other voluntary activities (51). More telling, perhaps, is the fact that "acting on my environmental ethics" (6) was ranked lower on this perspective than all others.

Perspective D: Environmental Ethics, Power, and Effectiveness

Acting on my environmental ethics (6) is a key defining statement for perspective D. Based on these data, it is impossible to say what the content of people's environmental ethics is. We can only state that, for some people, a sense of ethical importance dominates their decision to participate or not. Individuals associated with this perspective were driven by a sense that their personal contribution was needed (5) and others were not likely to step in (10).

Another reason perspective D stands out is because of the focus given to being able to start to solve watershed problems immediately (29), which, when combined with statements about producing tangible results (21), having relevant objectives (24), being capable to achieve goals (32), my ability to make a strong contribution (5), and having competent leadership (47), all point to having a successful impact on the problem. In other words, people participate when they feel they can make a positive empirical change consistent with their environmental ethics. There is a connection between the ethical importance of the problem (6) and the desire to make rapid progress on solving it (29).

To be sure progress is made, people sporting this perspective wanted the group to have some decision-making power (30), to have the meetings to be productive (38), and to be listened to (46). They were concerned about the quality of discussions and group interactions during the process (27, 39).

On the other hand they were not strongly concerned about how participation related to their professional work (22). They cared little about their boss's attitudes (23) or community support (18). Nor were they driven by a concern for the time required to participate (41, 42, 35).

Nine of the 10 individuals who loaded significantly on this perspective were active participants. This perspective was widely shared among those we interviewed from the Massachusetts Bays Project. Many of the participants from Massachusetts were not elected officials or professional staff. They were citizens motivated to seek appointments to local government boards. Consequently, they cared less about superior's attitudes (23), how participation would affect their professional lives (41), or the time this would take from their personal lives (42). They desired to act on their environmental ethics (6) in an effective way.

Perspective E: Part of the Job Matches My Skills

Perspective E represents a point of view that is rooted in exploring whether there is a match between the individual LGO and the watershed management project. It differs

significantly from perspectives A, C, and D in not giving strong emphasis to the effectiveness of the project (24, 47, 40, 38, 21). It shares with perspective C concerns about the effects one's participation may have on one's local community (16, 52, 17, 18). Unlike perspective B, there is very little concern for time demands of participating (41, 42). The statement about time that would come out of one's personal life (42) was ranked lower on this perspective than all others. People adhering to this perspective reflect upon their environmental ethics (6), their past experiences with similar projects (8), and their personal interests (13) before deciding what to do. Professional interests and responsibilities (22) matter much less.

Standing out was the importance assigned to the timing between their term of office and the watershed project (19). The common factor among the three who loaded high on this factor is that they all participated in the watershed project until they left their governmental positions. This perspective captures a small and highly unique perspective that is most relevant to people who have recently left roles in local government. We consider it less an artifact of the research than a lesser important perspective that conveys the motivations of a limited group of LGOs.

Contributions to Theory and Practice

Devolution of federal government clearly has led to a greater need for local involvement in environmental decision making (Wernstedt 2000). To succeed, participation by citizens, stakeholders, and local governmental officials (LGOs) is critical. While a great deal of research is presently being done on the best way to involve people in participatory decision making, fewer studies have inquired into the reasons why people participate. This study used Q methodology to explore decisions LGOs make about participating in watershed planning processes in New England.

In our review of the literature we noted seven categories of factors that might influence decisions to participate in collaborative environmental decision making. Did these same categories arise from this empirical study? Table 3 compares the two lists. What stands out is the lack of finding several of the categories from the literature review. There is not the space to elaborate on these results here, but we note that in our Q study we found no factors associated with intergovernmental relations, the performance of governmental institutions, normative considerations of the process, or interpersonal relationships. Two possible explanations for these results could be explored in future research. First, to what extent are these results due to the specifics of these cases or the nature of the policy issue? In other words, is there something peculiar about these watershed management cases, or even watershed management in general, that makes certain factors more or less important? Second, is there something peculiar about LGOs that make certain kinds of factors more or less relevant? Or, do both the policy context and the type of actor come into play in shaping people's decisions about whether or not to participate in collaborative environmental decision making?

One key finding is that organizers of participatory planning processes need to convince would-be participants that the effort is capable of producing meaningful results and that meeting time will be productive toward achieving the goals. This suggests that planners need to pay careful attention to the design of the process, ensuring that it makes efficient and competent use of the participants' efforts.

A second finding is that characterizing the project in ways that are seen as consistent with environmental values and community rewards will certainly encourage some LGOs to participate. People are likely to participate if the project offers a

TABLE 3 Reflecting from the Results Back to the Factors Identified in the Literature Review

Categories of factors from literature review	Results
Institutional regimes and intergovernmental relationships	None found
Trust, credibility, and sincerity of governmental institutions	None found
Local concerns, incentives, and constraints	Perspectives B, C
Participants' skills, knowledge, resources	Perspectives A, C, D, and E
Personal values and interests	Perspectives B, E
Normative features of the policy making process	None found
Interpersonal relationships	None found

concrete way for them to act on their values or to win rewards for their community. During interviews, we learned that LGOs appreciated it when the director of the watershed planning project came to their town or city, listened to local concerns, and articulated how participation in the regional project would benefit their communities.

A common description of LGOs is that they are chronically short of time. Nonparticipants indicated that shortage of time was a major factor prohibiting their participation. But they combined this with two other explanations that suggest these nonparticipants gave the watershed projects low priority. Many who complained about the time demands of participation either may have lacked the value commitment to working on watershed management problems, may have simply believed there was not a problem, or may have though there were other more important issues demanding their time. Those who were inclined to participate also felt time constraints, but they made time for this. Either it was ethically important for them to do so, or their town authorized them to spend time on the project. We conclude that while time is an important constraint under which LGOs typically operate, it is not the primary reason why they decide to participate or not. In the end, LGOs are influenced by three types of motivations: They feel they can help make a positive difference; they see working on the problem as consistent with their environmental ethic; and it is in their community's interest that they participate in the process. Watershed management planners could benefit from these results by designing a participatory process that will produce concrete solutions and by emphasizing the connections between local community agendas and the agenda of the regional watershed project.

Notes

1. In the context of this research, "local government officials" refers to elected or appointed officials in cities and towns, including town managers, selectboard members, town or city councilors, planning board members, conservation commissioners, harbormasters, etc. or professional staff (engineers, planners, water quality managers, etc.).

2. By "factors" we mean variables associated with persons, context, or process that mediate peoples' perceptions or experiences.

3. The CAC includes interest group representatives, local business leaders, local government officials, and individual citizens. The TAC is composed of experts drawn from local businesses, universities, and regulatory arms of government.

4. The interviews used to develop the concourse were done as part of an earlier phase of this project when the emphasis was on coastal management. We interviewed people in the New Hampshire Estuaries Project as well as the Massachusetts Bays and Casco Bay programs. Although our original plan was to conduct the Q exercise with these three NEPs, discussion with the U.S. EPA in Region 2 brought the Connecticut river projects to our attention. When the U.S. EPA asked us to examine the differing participation rates between these river projects, we decided to replace the New Hampshire Estuaries NEP with the Norwalk and Quinnipiac cases. Even though we did not interview LGOs in Connecticut, the concourse is applicable to the Connecticut programs since they are designed using the same framework as the NEPs we studied.

5. We defined nonparticipants in three ways: (1) people who took the initiative to learn about the project, but never became regular participants in any way; (2) people who were targeted for participation (they were invited and informed) but who never attended meetings or participated in any meaningful way; and (3) people who dropped out of a process after initially participating, for any reason.

6. We aimed to collect Q sorts from 10 people per project, but the main goal was to find as many different perspectives as possible. In the end we had 9 participants each from the Casco Bay Program and the Norwalk River Project, 10 from the Quinnipiac River Project, and 11 from the Massachusetts Bays Program, for a total of 39 participants.

7. We attempted to mitigate researcher influence on participants by emphasizing that every individual had a legitimate point of view and we were not there to judge them in any way. We told nonparticipants we understood that there were many good reasons why they might not participate, and we emphasized that honest answers would help us make recommendations that would better match willing participants with the watershed management projects.

8. This freeware program is available through http://www.qmethod.org. Readers interested in learning more about Q method will find this web site informative.

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